This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) An isolated and purified nucleic acid molecule that encodes a guinea pig ~~mammalian~~ histamine H4 receptor protein, or a complement of said nucleic acid molecule, comprising a member selected from the group consisting of:

(a) a polynucleotide ~~nucleic acid molecule~~ encoding a protein comprising amino acids 1 to 389 of SEQ ID NO:10;

(b) a polynucleotide that ~~nucleic acid molecule which~~ is complementary to the polynucleotide of (a);

(c) ~~a nucleic acid molecule comprising at least 15 sequential bases of the polynucleotide of (a) or (b);~~ and

~~(d)~~ a nucleic acid molecule that hybridizes under stringent conditions to the polynucleotide ~~molecule~~ of (a) or (b).

2. (Original) The nucleic acid molecule of claim 1 wherein the polynucleotide is RNA.

3. (Original) The nucleic acid molecule of claim 1 wherein the polynucleotide is DNA.

4. (Currently amended) The ~~isolated and purified~~ nucleic acid molecule of claim 1, having the ~~a~~ nucleotide sequence of SEQ ID NO:7.

5. (Canceled)

6. (Currently amended) An expression vector for expression of a guinea pig ~~mammalian~~ histamine H4 receptor protein in a recombinant host, wherein said vector contains a nucleic acid sequence encoding a guinea pig ~~mammalian~~ histamine H4 receptor protein having the ~~an~~ amino acid sequence of SEQ ID NO:10.

7. (Currently amended) The expression vector of claim 6, wherein the expression vector contains a nucleic acid molecule ~~encoding a mammalian histamine H4 receptor protein~~ having the ~~a~~ nucleotide sequence of SEQ ID NO:7.

8. (Canceled)

9. (Currently amended) A recombinant host cell containing a recombinantly cloned nucleic acid molecule encoding a guinea pig ~~mammalian~~ histamine H4 receptor protein having the ~~an~~ amino acid sequence of SEQ ID NO:10.

10. (Currently amended) The recombinant host cell of claim 9, wherein said nucleic acid molecule has the ~~a~~ nucleotide sequence of SEQ ID NO:7.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14-15. (Canceled)

16. (Currently amended) A process for expression of guinea pig ~~mammalian~~ histamine H4 receptor protein in a recombinant host cell, comprising:

(a) transferring an expression vector containing a nucleic acid sequence encoding a guinea pig histamine H4 receptor protein having an amino acid sequence of SEQ ID NO:10 ~~the expression vector of Claim 6~~ into suitable host cells; and

(b) culturing the host cells of step (a) under conditions which allow expression of the guinea pig ~~mammalian~~ histamine H4 receptor protein from the expression vector.

17-25. (Canceled)